

AN ERA OF CANDLELIGHT

FOR TWO CENTURIES, AMERICA AFTER DARK WAS
ALIGHT WITH THE GLOW OF WAX AND WICK.

by Gregory Le Fever



Once the sun went down, candles were among the most important items an early American family possessed. They helped the first colonists see through the night in New England's bitter cold and in Tidewater Virginia's sticky heat. As the country expanded, candles brightened Appalachian cabins as well as canvas-covered wagons crossing the Great Plains, heading ever west. By candlelight, weary settlers read their well-worn Bibles and checked on their sleeping children.

For more than two hundred years the glimmer of candles illuminated thousands of isolated homesteads and lighted the way along rutted roads as America's villages grew to towns and then to cities. In candlesticks on tabletops, in chambersticks carried from room to room, and in tin lanterns in barns and ships and stagecoaches, these humble spears of wick and wax conquered the nighttime.

COLLECTING TALLOW

The first European settlers landing on America's eastern shores in the early 1600s could bring only a few candles with them from the Old World, and they quickly realized it would be years before they'd have the luxury of making more. Back then, dipping candles required tallow made from animal fat, and the scant herds they managed to raise were still too precious to slaughter.

Aside from the few imported candles, the only nighttime light in the early colonies came from the hearth, some small fish-oil lamps in areas where fish were plentiful, and crude torches made of pine knots collected from the surrounding forests. But within a decade or so, settlers began butchering their livestock in enough number to collect tallow.

Though hogs were plentiful, their fat was too soft and foul smelling for suitable candles. So, for much of the year, families stored the fat from butchered cattle and sheep in vats. When making candles, summer tended to be too warm for the hot wax to cool quickly enough, yet stockpiles of candles needed to be in place before the onset of the long winter nights.

So, late autumn became the customary candle-making season.

A DELICATE PROCESS

In the rural households making up most of early America, women and children usually made the family's candles. They poured the collected rancid animal fat into a kettle of scalding water to remove its impurities. The yellowish, clarified tallow floated to the top and was ladled into another kettle for dipping.

With the kettle of hot tallow suspended over an even flame, the women lowered rods adorned with dangling wicks—usually twisted cotton, sometimes coarse linen or hemp—into the heated



From the home of Donna Finnegan.



wax. When a layer of wax adhered to the wicks, they set aside the rod to cool and then lowered another set of wicks into the warm tallow. The rhythm of repeated dipping the rows of wicks into tallow and then cooling them eventually thickened the candles until they reached about an inch thick.

Describing the process makes it sound deceptively simple. Actually, it took skill to clarify the tallow so that the waxy residue would be as pure as possible. Keeping the rods and wicks organized so that the dipping occurred in the proper sequence at the right time required a keen sense of organization, and maintaining the correct amount of heat beneath the dipping kettle called for a watchful eye.

Most early Americans who made candles did so by dipping, though others were fortunate enough to have tin candle molds. These molds—resembling the bronze candle molds used in Europe for several centuries—typically had four or six tubes on a frame. The wick was placed in the tubes, melted wax poured into them, and the finished candles removed when they had cooled.

AN IMPERFECT CANDLE

Newly made tallow candles had to cool at least a day and then be properly stored. They had to be kept away from heat so they wouldn't melt and lose their shape, and kept in solid containers away from rodents, who considered tallow quite a tasty treat.

Yet even when expertly created, tallow candles were troublesome. They were so smoky they threw off soot inside the home and could turn walls and ceilings black. They gave off a weak, sputtering light and their wicks required trimming several times an hour. They were greasy and had a strong, unpleasant smell. Their melting point was so low they would bend and slump on warm nights or when placed too close to the hearth.

Records and diaries indicate that early American families who made their own candles usually produced about three hundred a year, or less than one candle for each night.

DISCOVERING CANDLEBERRY

Candles greatly improved in the early 1700s when colonial women living near Cape Cod discovered that a common bog bush produced berries containing wax. The bayberry bush grows in coastal areas from New England, down the Atlantic coast and across the southern shoreline into Louisiana and Texas, and soon became known as the candleberry tree, swamp candleberry, or tallowbush.

Right after fall's first heavy frost, women and children would head with baskets to the marshlands to harvest as many of the small, grayish berries as they could. As with tallow, they boiled the berries in scalding water and skimmed off the clarified wax, often called "myrtle wax." The problem was, it took a dozen or more pounds of bayberries to produce just one pound of candle wax.

Though harvesting bayberries was backbreaking work and yielded little wax for the effort, the benefits were great. Bayberry wax melted at higher temperature than tallow, making stronger candles that were less inclined to droop. Being a harder wax, it burned brighter and with much less smoke than pure tallow. Bayberry also is known for its fragrance, which one Virginian in 1689 noted, "instead of stinking, does really perfume like Incense."



People seldom made candles purely of bayberry, due to the huge amount of berries required, but whenever possible they added bayberry wax to their tallow candles. The result was a candle that burned brighter, longer and with less smoke, and this time emitted a more pleasing aroma.

CANDLES FROM THE HIVE

No candle even to this day is as revered as the beeswax candle. From the Middle Ages on, beeswax candles have been praised for the quality of their glow—giving off the same spectrum of light as natural sunlight—their firmness, lack of smoke and unmistakably pleasant fragrance. In Europe for centuries they were produced by monks and associated with religious ceremonies, and when commercially available, were so high priced that only the rich could afford them.

Beeswax candles remained rare in America for most of the country's first two centuries. Honey and beeswax were collected by cutting down bee trees and scooping out the dripping mass or by killing colonies of bees in skeps and makeshift hives. Until the mid-1800s, crushing the honeycomb to squeeze out the honey was the usual method of harvesting honey and wax.

Bee skeps and other manmade hives followed the westward path of American settlement. Records show bee colonies in Connecticut in 1644, Pennsylvania in 1698, Georgia in 1743, and Kentucky in 1780, as examples. By 1800, settlers were keeping bees from the Atlantic seaboard to the Mississippi River. Still, gathering honey and beeswax was difficult—which kept the value of both quite high—until 1852 with the invention of the movable-frame hive, followed in 1865 by invention of the centrifugal honey extractor.

Always preferred by candle makers who used molds instead of dipping, the increase in available beeswax meant much higher beeswax candle production and more reasonable prices, enabling more people to enjoy this most admired of candles. And the increase in available beeswax—also used for finishing furniture, treating leather, and as grease for machinery—was a boon to families creating their own candles.



CREATING HARDER WAXES

Almost a century would pass after discovery of the bayberry before the next major improvement in candle making. This time it came from a far different source—the skull cavity of huge sperm whales swimming in far-flung oceans. American whalers in the mid-1700s found that sperm whale oil, when crystallized, produced a hard wax called spermaceti that burned brightly with no foul odor. Along with the actual oil from the whale, this discovery brought much nighttime illumination to early America in both oil for lamps and wax for candles.

With the coming of the 19th Century, candle making entered a more industrial age, with a series of inventions in America and Europe that moved candles away from a simpler, more romantic era and into the modern age.

*“A bayberry candle, burned to the socket, puts luck in the home, food in the larder, and gold in the pocket.”
- Old New England saying*

In the 1820s, French chemists learned how to remove the smelly glycerin from tallow and to produce stearic acid, another hard, clean-burning wax. American chemists followed in the 1850s, discovering they could efficiently extract a waxy substance from petroleum. Now familiar as paraffin, this wax was cheap and ideal for candles, except for one thing: It had a low melting point and, like tallow, produced weak candles sensitive to heat. But innovation prevailed, and chemists soon realized that adding stearic acid to paraffin candles made a relatively problem-free and inexpensive candle.

INTO THE MODERN AGE

Like the search for harder and more fragrant wax, candle wicks also improved over the course of two centuries.

During the colonial days, wicking from Europe was scarce, so settlers relied upon make-shift wicks—some even made of stringy milkweed down—that sputtered and smoked and needed to be snipped four or five times an hour. But people learned that a woven or plaited wick, soaked in mineral oil, trimmed itself as it burned and greatly extended a candle’s burning time. This superior, woven wicking became popular in both America and Europe in the early 1800s.

And while candles had been produced commercially for centuries in Europe with primitive candle-making machines, the process got a boost from two enterprising Americans. Joseph Sampson in 1790 received the second patent ever issued by the new United States Patent Office, this one for a continuous-wick machine that eliminated having to re-wick each mold by hand. Then, in 1834, Joseph Morgan created a machine using cylindrical molds and pistons for creating candles at a rate of about 1,500 an hour.



With Morgan’s invention, candles entered the modern age of mass production, but the heyday was short-lived. Discovery of kerosene in 1857 and the introduction of the electric light bulb in 1879 brought to a close the country’s reliance on candles and oil-fueled lamps.

Even so, candles have not disappeared from our homes. They retain their allure with a golden glow turning the ordinary into something extraordinary. They give comfort in the dark, and whatever the strains of the day may have been, they bring a sense of calm to the evening.

And we know that the simple act of lighting a hand-dipped candle in a darkened room can create a special link with our country’s past. For somehow, as if by magic, the soft light of burning wax is timeless.



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